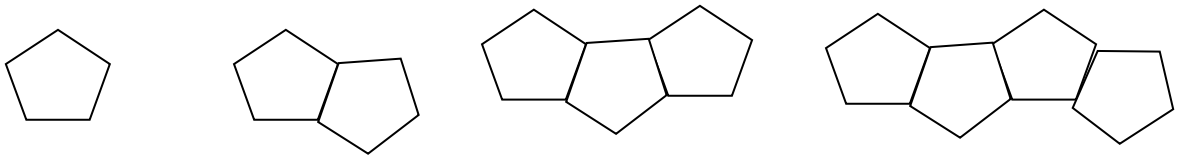
Math I Homework Name_____

1) Consider the sequence of figures below made from pentagons.



a) Complete the table below for the first five figures.

Figure Number	Perimeter
1	5
2	8
3	
4	
5	

b) Write a NOW-NEXT equation to find the perimeter of each figure.

c) Find the perimeter of the 10^{th} figure.

d) Which number figure has a perimeter of 47?

2) List the first 4 values generated by the recursive routine below. Then write the routine as a NOW-NEXT equation.

4 ENTER
ANS*-3,ENTER

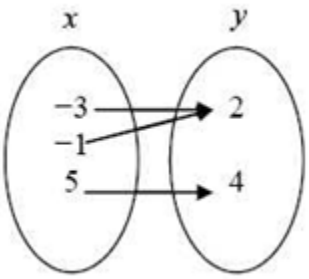
3) Write a NOW-NEXT equation for each sequence. Then use your equation to find the 7^{th} term of each sequence.

a) 5.8, 7.0, 8.2, 9.4 , . . .

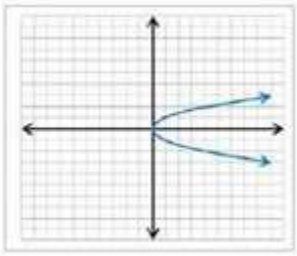
b) 2.5, 5, 10, 20, . . .

4) Determine which of the following relationships are functions. Justify your answer.

a)



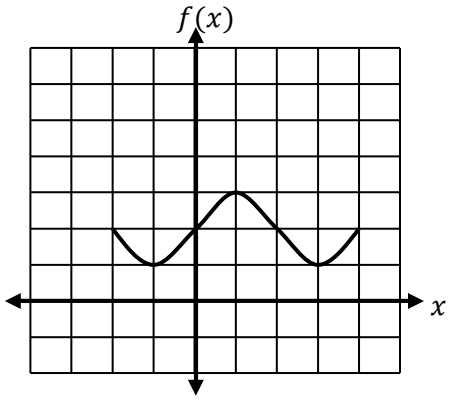
b)



c)

x	y
1	3
2	6
3	9
4	12
5	15

5) Answer each question for the graph of $f(x)$.



a) What is the domain of the function?

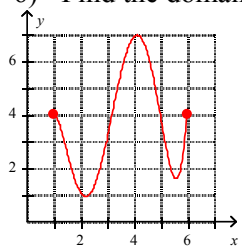
b) What is the range of the function?

c) What is $f(3)$?

d) For what values of x does $f(x) = 1$?

e) Is this function discrete or continuous?

6) Find the domain and range of the graph.



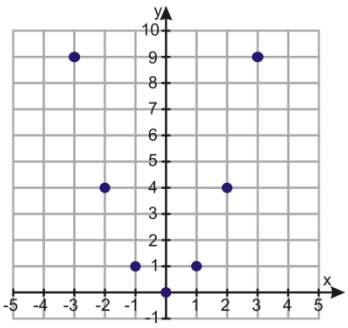
a. D: $1 \le x \le 4$
R: $1 \le y \le 6$

b. D: $1 \le x \le 7$
R: $1 \le y \le 6$

c. D: $2 \le x \le 6$
R: $4 \le y \le 7$

d. D: $1 \le x \le 6$
R: $1 \le y \le 7$

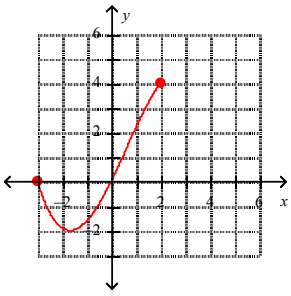
8.



Domain:_____

Range:_____

7) Find the domain and range of the graph.



a. D: $-3 \le x \le 2$
R: $-2 \le y \le 4$

b. D: $-2 \le x \le 4$
R: $-3 \le y \le 2$

c. D: $-4 \le x \le 3$
R: $-4 \le y \le 5$

d. D: $3 \le x \le 2$
R: $0 \le y \le 4$